

Table I
Objectives Addressed by Research Projects
NIOSH Occupational Energy Research Program
October 1998

	Cancer Risks	Other Health Outcomes^a	Combined Cohorts^b	Non-cohort Mort. Study Designs^c	Radiation Exposure Assessment	Non-rad Exposures Assessment	Current Workers	Continued Studies^d	Unstudied Sites
COMPLETED RESEARCH									
Multi-Site Multiple Myeloma Case-Control Study	X		X	X		X			
Mercury Workers Health Study		X		X		X			
Historical Plutonium Bioassay Measurements					X				
Accounting for Errors in Radiation Dose Estimates					X				
Cohort Mortality of PORTS ^e	X				X	X		X	
Feasibility Study of Assessing Adverse Reproductive Outcomes Among Females Employed at DOE Facilities		X	X	X			X		
Childhood Leukemia Case-Control Study	X		X	X	X				X
Time-Related Factors in Radiation-Cancer Dose Response	X							X	

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Dose Estimation from Daily and Weekly Dosimetry Data					X				
Cohort Mortality Study of Fernald Environmental Management Plant (FEMP), OH	X				X				
Cohort Mortality Study of Savannah River Plant, Aiken, SC	X				X				
ON-GOING RESEARCH									
Portsmouth Gaseous Diffusion Plant Nested Case-Control Studies	X			X	X	X		X	
Cohort Mortality Study of INEEL ^e	X					X			X
Cohort Mortality Study of PNS ^e	X					X		X	
Leukemia Case-Control Study	X		X	X		X			
Multiple Myeloma Case-Control Study at the Oak Ridge Gaseous Diffusion Plant (K-25)	X			X		X			
Exposure Assessment of Hazardous Waste, Decontamination and Decommissioning, and Clean-up Workers (Phase I)			X	X	X	X	X		
Cohort Mortality Study of DOE Chemical Laboratory Workers	X		X			X			
Cohort Mortality Study of Pantex Plant, Amarillo, TX	X					X		X	

[illegible]

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Exposure Assessment of Radiologic Technologists for Epidemiology Studies					X				
Assessment of Electric and Magnetic Field Exposures of Transportation Workers						X	X		
Neutron Exposure Assessment in Epidemiology Studies of DOE Cohorts					X				
Documentation of Historical Dosimetry Practices at DOE Sites					X				
Cancer Incidence Study of Rocky Flats Plant	X			X	X	X		X	
International Collaborative Study of Nuclear Industry Workers	X		X		X			X	
Prevention of Stress and Health Consequences of Downsizing and Reorganization		X	X	X		X	X		
Chronic Beryllium Disease Among Beryllium-Exposed Workers		X	X	X		X	X		
Beryllium Disease Natural History and Exposure Response		X	X	X		X	X		

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Mortality Among Female Nuclear Weapons Workers	X		X			X			
Glycophorin A Biodosimetry in I-131 Treated Patients		X		X	X				
Measurement Error Methods for Underground Miner Studies					X				
Lung Fibrosis in Plutonium Workers		X		X					
Studies of Heat Stress and Performance in Carpenters at DOE Sites		X		X		X	X		
Ionizing Radiation and Mortality Among Hanford Workers	X				X	X		X	
Acute Radiation Syndrome in Russian Nuclear Workers		X		X			X		X
Exposure Assessment for Mallinckrodt Workers' Study					X	X		X	
PLANNED RESEARCH									
Exposure Assessment of Hazardous Waste, Decontamination and Decommissioning, and Clean-up Workers (Phases II & III)			X	X	X	X	X		

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Update of Cohort Mortality Study of Mound Workers	X				X	X		X	
Medical/Off-Site Radiation Exposures			X		X		X		
Brain Cancer Case-Control Study	X		X	X					
Thyroid Cancer Case-Control Study	X		X	X					
Bone Cancer Case-Control Study	X		X	X					
Breast Cancer Case-Control Study	X		X	X					
JEM Data Sensitivity Analysis					X				

- Health outcomes studied are other than cancer, e.g. injuries, reproductive effects, biomarkers, disease progression, neurologic, etc.
- Study subjects are drawn from multiple sites; the study population is combined across facilities
- Study design is other than a cohort mortality study, e.g. case-control, incidence, exposure-response or exposure assessment
- Studies which are updates or a continuation of a previous study.
- Abbreviations:

FEMP	Fernald Environmental Management Plant
IARC	International Agency for Research on Cancer
INEEL	Idaho National Engineering and Environmental Laboratory
JEM	Job Exposure Matrix
K-25	Oak Ridge Gaseous Diffusion Plant
MCW	Mallinckrodt Chemical Works
ORNL	Oak Ridge National Laboratory (also known as X-10)
PORTS	Portsmouth Gaseous Diffusion Plant (Piketon, Ohio)
PNS	Portsmouth Naval Shipyard (Not a DOE site, but included since involved in several on-going studies)
Zia	Zia Company (former maintenance contractor at LANL)